

Use of ICT in Dental Education

(Interactive Session)

VSPM Dental College, Nagpur

21 Jan 2020

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Acknowledgements... and Disclaimer

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ICT Ubiquity

- Faster, cheaper processing power
- Increased storage spaces at affordable cost
- High speed connectivity
- Universal spread.

The Digital Divide

**Digital
migrants**

**Digital
natives**

ICT in Dental-Education

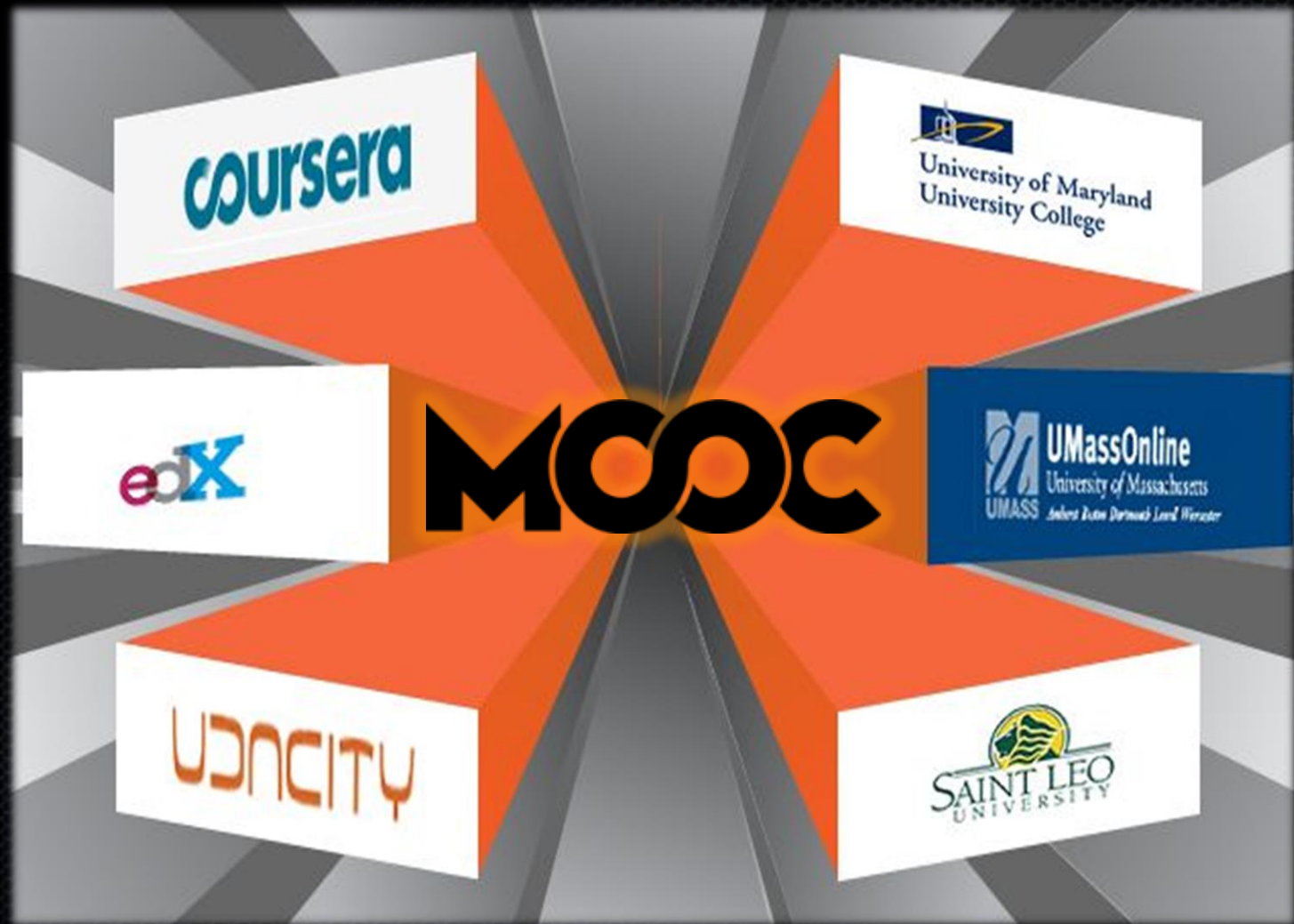
Teacher-centric



Existing Skills. Free Tools - offline and online

Necessity for eLearning





eLearning

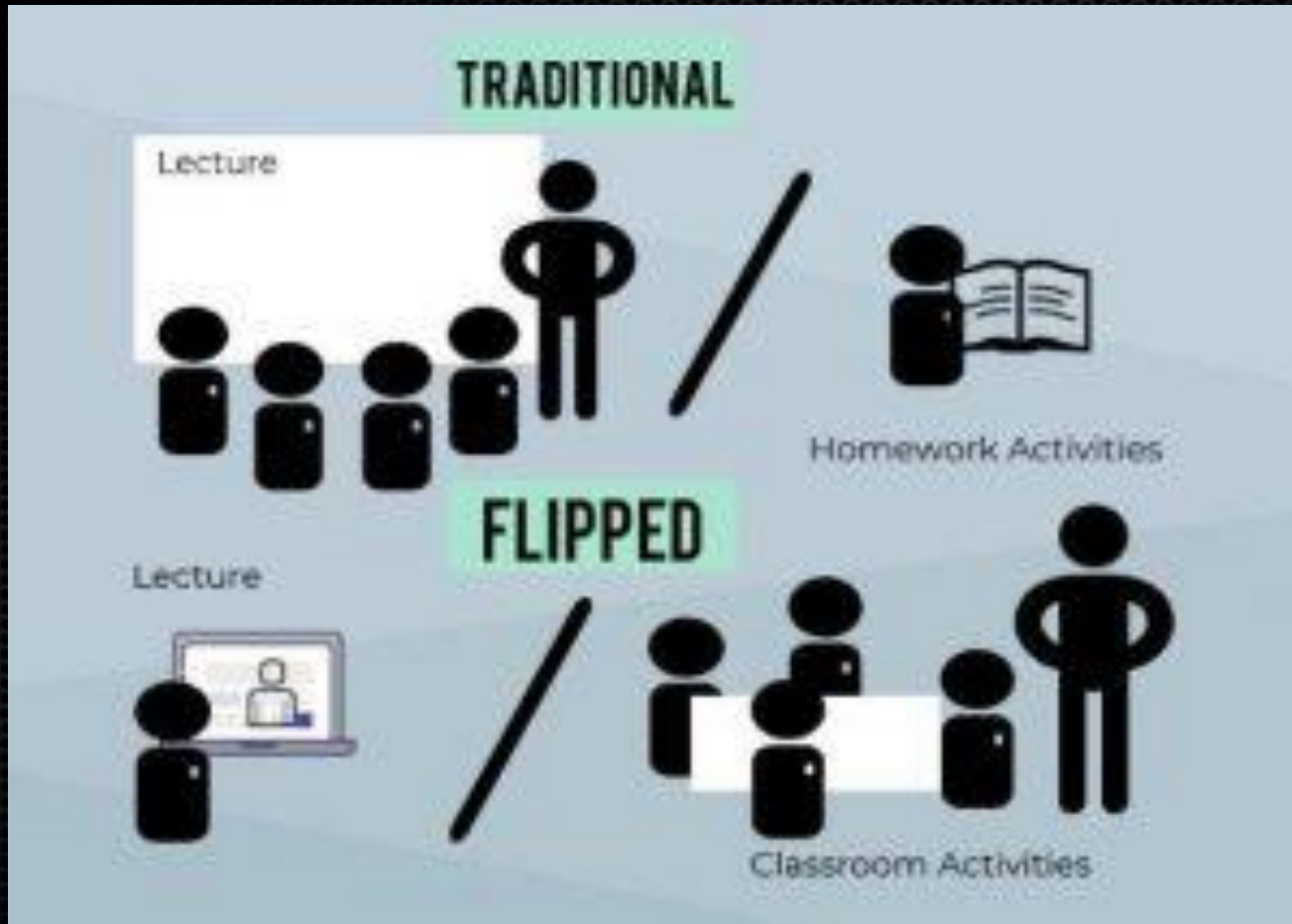
Use of electronic resources in formal teaching.



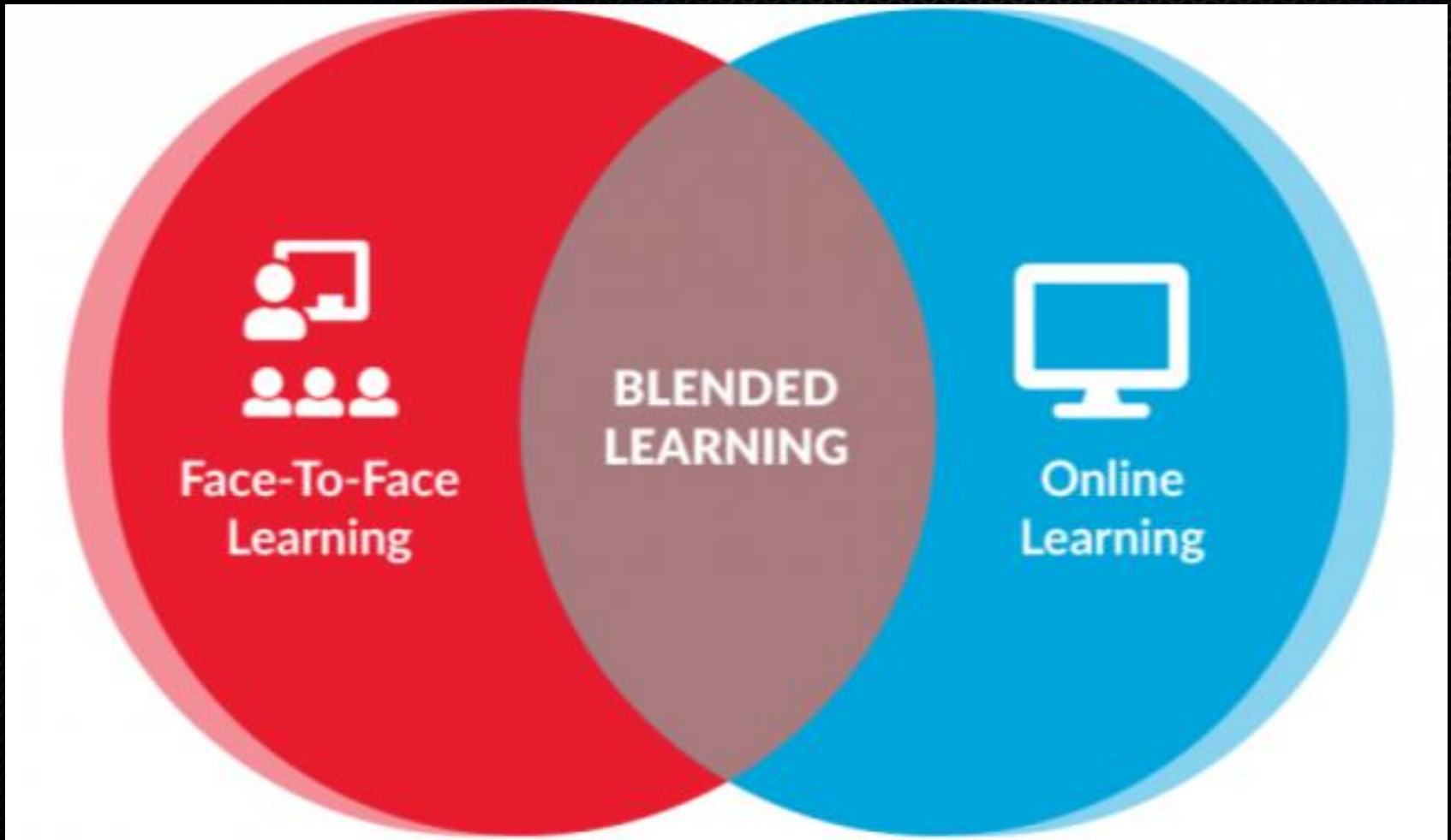
Smart Classrooms



Flipped Classroom



Blended learning



Dental students' perceptions of an online learning

Moshabab A. Asiry

Overall positive responses were reported by the students regarding the acceptability and usability of online learning. The students viewed online learning helpful as a supplement to their learning rather than a replacement for traditional teaching methods. Further studies are

Dental faculties have historically been slow to adopt technological innovations. Evidence that dental faculties are late adopters of e-curricula comes from a 2004 study of students in North American dental schools with mandatory laptop programs. Clearly, the adoption and widespread use of

Blended Learning Best Practices from Health Science Teachers



Synchronous vs Asynchronous Learning

SYNCHRONOUS LEARNING

Live webinars



Instant messaging



Video conferencing



Virtual classrooms



Mobile Learning





Research Article | Assessment

e-Assessment in a Limited-Resources Dental School Using an Open-Source Learning Management System

Maha M.A. El Tantawi, Maha M. Abdelsalam, Ahmed M. Mourady and Ismail M.B. Elrifae

Journal of Dental Education May 2015, 79 (5) 571-583;




[Home](#) / [Blog](#) / [Elearning Blog](#)

/ [How a Small Dental Practice Implemented LMS and Turned into Online Dental](#)


ELEARNING

How a Small Dental Practice Implemented LMS and Turned into Online Dental Program Rolled out Across Europe

 *Ilona Hetsevich*

 23 Jun 2017

 Hits: 5210

 0 Comments

ResearchGate or


[See all > 1 Citations](#) [See all > 20 References](#) [See all > 7 Figures](#)

Using Moodle As An E-Learning Solution In Dental Education- A One Year Experience.


Conference Paper (PDF Available) · June 2012 *with* 311 Reads ⓘ

Conference: European, Mediterranean & Middle Eastern Conference on Information Systems (EMCIS), At Munich, Germany

[↓ Cite this publication](#)



Maha El Tantawi
الـ28.65 · Alexandria University



Ahmed Mourady

SMART Virtual Dental Learning Environment

Conference Paper (PDF Available) · January 2019 *with* 47 Reads ⓘ

DOI: 10.1109/ICBDSC.2019.8645584

Conference: 2019 4th MEC International Conference on Big Data and Smart City (ICBDSC)

 [Cite this publication](#)



Raza Hasan

7.61 · Middle East College



Midhat Ghufuran



Syed Shahrukh Javed

+ 2



Hammad-ul-Haq

EDUCATION

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Yale is poised to join the list of top-tier universities now offering online master's programs. Will these initiatives work?

ALIA WONG MARCH 20, 2015



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Surgical Simulation Training: Is Virtual Reality The Future Of Surgical Training?

Virtual reality simulated training can teach vital skills to surgeons before they take patients under the knife. Here are some of the benefits and the problem areas associated with surgical simulation training, or else virtual reality in the operating room.



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Introduction to Dental Medicine (Coursera)

Created by: [University of Pennsylvania](#) Delivered by: [Coursera](#)

Taught by: [Eric Stoopler](#) and [Thomas P. Sollecito](#) and [Uri Hangorsky](#)

The mouth is the window into human health. This course provides an overview of dental medicine to engage, educate, excite and assist you in improving the oral health of your patients and members of your community.



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Online Course

Introduction to Dental Medicine

University of Pennsylvania via Coursera

★★★★★ (4)

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Overview

Class Central Tips

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The mouth is the window into human health. This course provides an overview of dental medicine to engage, educate, excite and assist you in improving the oral health of your patients and members of your community. We will review topics in dental medicine including scope of the field, what to expect in function, and some of the many ways that dysfunction may present for different patients. This will include discussions of mouth, jaw, and tooth anatomy, pathology, and treatment. We will talk about differences between patients and the unique roles that different members of the dental field may play in treatment depending on the patient and condition. This course starts from basic concepts and proceeds to review trends in current research and technology. We offer scientific background, some skills for patient evaluation and interview, and some suggestions for further learning for those interested in or involved in dental education.



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COST	Free Online Course (Audit)
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CERTIFICATE	Paid Certificate Available
EFFORT	1-2 hours a week
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DURATION	7 weeks long

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Research Article | [Use of Technology in Dental Education](#)

Dental Students' Use of Student-Managed Google Docs and Other Technologies in Collaborative Learning

Bradley S. Roberts, Eugenia P. Roberts, Steven Reynolds and Amy F. Stein

Journal of Dental Education April 2019, 83 (4) 437-444; DOI: <https://doi.org/10.21815/JDE.019.053>

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Apps

Real Tooth Morphology
Light Arc Studio Medical ★★★★★ 21

₹400.00 Buy

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Complete Dentition
SLICE

SELECT INFORMATION
Overview of the teeth
Overview of teeth
Primary Incisors
Molar Predeciduous
Canine and the premolars
Secondary Incisors
Other anterior's Teeth

HELP BACK
MAP Left Second Molar SPIN SLICE

NAVIGATION
OCCLUSAL
MEDIAL PALATAL DISTAL
BUCCAL

Left First Molar
SLICE

Occlusal ridge
A ridge of enamel marking distinctly divides the anterior surface of maxillary incisors. Made up of the transverse ridge of the predeciduous stage and the distal ridge of the non-predeciduous stage

REVOLUTION

This groundbreaking app uses high resolution micro-CT scan data of real teeth. The data has been

WhatsApp-Imc

Smart Boards

- Interactive White Board (IWB)
- Projector, computer, and whiteboard all in one
- Large, touch-sensitive display














सत्यमेव जयते

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Development**

Government of India

Gol Initiatives

No.	Resource	For students/Researchers	
Audio-Video e-content			
	SWAYAM  : Massive Open Online Courses   	Earn credit through online courses	- Encourage to develop - Accept SWAYAM - Form SW
	SWAYAMPBHA  : View digital courses on TV	Watch high quality educational programs 24*7	Provide for SWAYAM
Digital content: access journals and e-books			
	National Digital Library  : e-content	Access e-content on multiple disciplines	- Get you - Form N
	e-PG Pathshala  : Gateway for e-books upto PG	Get free books and curriculum-based e-content	Host e-b
	Shodhganga  : A reservoir of Indian Theses	Access Research Theses of scholars of Indian Institutes	Get rese get listed
	e-ShodhSindhu  : e-journals	Get access to full text e-	Get acces

Accelerated Hands on learning

1	e-Yantra : Engineering for better tomorrow	Get hands on experience on embedded systems	Create e-Yantra labs for training in embedded systems in collaboration with IIT Bombay
2	FOSSEE : Free/Libre and Open Source Software for Education	- Access and volunteer for the use of open source software - Become FOSSEE fellow	Run labs in open source
3	Spoken Tutorial : Tutorial in IT application	Self-training in IT fields	Encourage eminent faculty to provide training content for self-learning
4	Virtual Labs : Web-enabled experiments designed for remote - operation - Virtual Labs at a Glance	Try curriculum based virtual experiments	Develop virtual experiments for Virtual labs suited to course curriculum in gap areas


Track your progress


1	VIDWAN : Expert Database and National Research Network IRINS : INDIAN RESEARCH INFORMATION NETWORK SYSTEM	Register on VIDWAN	Get your faculty registered on VIDWAN - Monitor research outcomes at different levels
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Courses

Metallurgy and Material Science

NOC: Biomaterials for bone tissue engineering applications (Video)

Syllabus

Co-ordinated by : IISc Bangalore

Available from : 2016-08-22

Lec :1

Modules / Lectures

Introduction to Biomaterials and Biocompatibility

- Lec1-Introduction

- Lec2-Biomaterial

- Lec3-Biocompatibility

- Lec4-Host response

Defining tissue engineering scaffolds and implants

Structure and Properties of Proteins and Cells

Stem cells and Cell fate processes

Cell-material Interaction (in vitro and in vivo) and Clinical trials

Manufacturing of Biomaterials (metals, ceramics and polymers)

HA-based composites

Glass ceramics for orthopedic and dental applications, acetabular socket and femoral head, prototype

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Act

The screenshot shows a web browser window with multiple tabs. The active tab is 'Health Research Fundamentals'. The address bar shows the URL: https://swayam.gov.in/nd1_noc19_ge24/preview. The page header includes the Swayam logo and navigation links: 'About Swayam | All Courses | National Coordinators | Local Chapters'. Below the header is a 'COURSE CATALOG' section with a search bar and a 'SIGN-IN / REGISTER' button.

The main content area is titled 'Health Research Fundamentals' and is by 'Multifaculty | ICMR - National Institute of Epidemiology'. The text describes the course as a basic level course in health research methods, offered as NIE-ICMR e-Certificate - NieCer - Courses. It explains the fundamental concepts in epidemiology and bio-statistics related to research methods. The course will provide an overview of steps and principles for designing bio-medical and health research studies among human participants. It is intended for individuals interested in pursuing health research in various roles, including study investigators, clinical/public health researchers, physicians, counselors, research associates, social scientists, nurses, pharmacists, technicians, data and quality managers etc., scientists, ethics committee members and project managers.

INTENDED AUDIENCE : Any current or potential health researcher
PRE-REQUISITES : Undergraduate students in medical/dental/nursing/AYUSH streams Graduate in any discipline
INSTITUTIONS SUPPORT : Government/ private sector, public health service institutions/ agencies, Post graduate institutions in biomedical and allied sciences, Medical colleges/ Universities, NGOs engaged in health research, Clinical research organizations, Pharma companies and marketing research organizations

On the right side, there is a video thumbnail for 'Health Research...' and a statistic: 'Learners enrolled: 5027'. At the bottom, there is a 'SUMMARY' section with 'Course Status : Ongoing'. An 'Activate Windows' watermark is visible in the bottom right corner.



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manavrachna.edu.in/university/

NPTEL Open Online Course (NOC)

Thank you!